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APOLLO PROGRAM DIRECTIVE NO. 28

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TO: Distribution

FROM: *Samuel T. Gillis*

APOLLO PROGRAM DIRECTOR

SUBJECT: Apollo Program Director Level I Change Approval Requirements

- REFERENCES:
- (1) NPC 500-1, Apollo Configuration Management Manual, May, 1964
 - (2) SE-005-001, Apollo Program Specification, March, 1966
 - (3) M-D MA 1400.005, Apollo Program Directive No. 4 (Series)
 - (4) M-D MA 1400.023, Apollo Program Directive No. 14, January, 1966. (Change Control of Apollo Space Vehicles at KSC)
 - (5) M-D MA 3400.033, Apollo Program Directive No. 18, May, 1966. (Changes to Apollo Hardware and Software for Saturn/Apollo Applications)
 - (6) SE-010-000-1, Apollo Flight Mission Assignments

I. PURPOSE

This Directive consolidates and augments previously stated criteria for determining those changes to the Apollo Program which must be submitted to the Apollo Program Office (Level I) Configuration Control Board (CCB) for approval by the Apollo Program Director prior to implementation.

II. SCOPE

The Apollo Program Office Configuration Control Board is the single point of action for processing all proposed Level I changes. References 1, 3, 4, and 5 established the basic criteria and procedures for submitting changes to the Level I CCB. The definition of changes to be submitted hereby is expanded as set forth in Section III below.

III. CRITERIA

Approval by the Apollo Program Director (Level I) is required for all changes or program actions meeting the following criteria:

III. CRITERIA (cont'd)

1. Technical Requirements

- a. Any change to Apollo hardware or software, facilities or Center Apollo/Saturn Specifications which would result in the inability to meet the technical requirements established in the Apollo Program Specification (Ref. #2) or the Apollo Flight Mission Assignment Document (Ref. #6).
- b. Any change to Apollo Program end items to meet the requirements of the Saturn/Apollo Applications Program (Ref. #5).

2. KSC Changes

- a. Any changes to Apollo Space Vehicle hardware at KSC which affect the established launch date or planned mission objectives (Ref. #4).
- b. Any change to be installed at KSC and is estimated to take 500 manhours or more to incorporate.

3. Schedule and/or Quantity Changes

Any change which affects or potentially affects any Apollo Controlled Milestone date or controlled hardware quantity (Ref. #3).

4. Costs

Any change for which the estimated dollar cost will require that the resulting contract document, contract modification or contract supplemental agreement be submitted for Headquarters' approval per NPC 400.

5. Experiments

Any change in assignment of an MSFEB approved experiment after initial assignment by the Apollo Program Director.

6. Level "A" Interfaces

Changes affecting Level "A" interfaces that require hardware modification to the space vehicle on both sides of the interface (i.e., both Centers affected.)

7. Other

Any change which results or may result in any of the following:

III. CRITERIA (cont'd)

- a. Affects the predicted hardware or system performance against the established safety and reliability goals as set forth in: (1) Apollo Program Specification, SE 005-001-1, Classified - Confidential, and (2) Apollo Test Requirements, NHB 8080.0 (formerly MPC 500-10).
- b. Modifies the Apollo system after the Flight Readiness Test (FRT).
- c. Affects the primary objectives or the profile of an Apollo mission as given in Reference #6.
- d. Changes the number of launch opportunities for a given mission.
- e. Any other change that the Apollo Program Director selects as requiring his approval.

IV. ACTION REQUIRED

1. Apollo Program Managers at their respective Centers shall be responsible for identifying and submitting all changes within the guidelines established in Paragraph III above to the Apollo Program Director for approval. Submittal will include results of prior coordination with effected Centers, an assessment and recommendations.
2. When there is a question on a specific change as to whether or not a Level I CCB action is required, check with the Apollo Program Director or his deputy by phone or TWX.
3. Where appropriate, interim change approval will be obtained from the Apollo Program Director or from his deputy by telephone or TWX, with written action to follow in all cases.